

# Use of alternative medicine by patients attending a gastroenterology clinic

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We carried out a study to determine the proportion of patients attending a university-based gastroenterology outpatient clinic who sought alternative medical care for the same health problem that had prompted them to see a gastroenterologist. After the patients completed a self-administered questionnaire, the gastroenterologist gave a diagnosis and assigned a functional rating. Of the 395 patients 287 (73%) had not used alternative medicine, and 36 (9%) had sought alternative medical care for the problem that had prompted them to see a gastroenterologist. There were no significant differences between alternative medicine users and nonusers in sociodemographic characteristics, use of health care services or general health status. Patients with a functional disease were more likely to seek alternative medical care than those with organic disease (33% v. 7%) ( $p < 0.0001$ ). Fewer alternative medicine users (54%) than nonusers (85%) were satisfied with conventional medicine ( $p < 0.001$ ), and more alternative medicine users (49%) than nonusers (13%) were very sceptical of conventional medicine ( $p < 0.0001$ ).

Nous avons effectué une étude pour déterminer la proportion de patients qui se rendent dans une clinique externe de gastroentérologie universitaire afin d'y obtenir des soins en médecine douce pour régler les mêmes problèmes de santé que ceux les ayant précédemment amené à se faire examiner par un gastro-entérologue. Après avoir demandé au patient de remplir un questionnaire, le gastro-entérologue devait poser son diagnostic et attribuer une cote fonctionnelle. Des 395 patients concernés, 287 (73%) n'avaient jamais eu recours à la médecine douce, et 36 (9%) avaient déjà obtenu des soins médicaux de ce genre pour régler le problème qui les avait amené à visiter un gastro-entérologue. On n'a constaté aucune différence significative entre les utilisateurs et les non-utilisateurs de médecine douce sur le plan des caractéristiques socio-démographiques, du recours aux services de soins de santé ou de l'état de santé général. Les patients souffrant d'une maladie fonctionnelle étaient plus enclins à obtenir des soins en médecine douce que ceux atteints de maladies organiques (33% contre 7%) ( $p < 0,0001$ ). Le nombre d'utilisateurs de médecine douce satisfaits de la médecine conventionnelle était inférieur au nombre de non-utilisateurs (54% contre 85%) ( $p < 0,001$ ), et un plus grand nombre d'utilisateurs de médecine douce se sont dits très sceptiques face à la médecine traditionnelle (49% contre 13% pour les non-utilisateurs) ( $p < 0,0001$ ).

Several studies indicate a trend toward increasing reliance on alternative medicine,<sup>1,2</sup> but there are few published data to substantiate this trend in Canada. There are many different alternative approaches (including acupuncture, homeopathy, naturopathy, chiropractic and mental therapies, such as meditation), all of which use frames of reference that are very different from that of conventional medicine.<sup>3,4</sup> For practitioners of conventional medicine it is important to know which patients seek alternative medical care, whom they consult and why they do so.

Evidence on the use of alternative medicine is scattered. Alternative medicine has been studied in populations that differ in geographic location and health problems as well as type of alternative medicine used. The reported proportion of patients seeking consultations with and treatment by alternative medicine practitioners varies widely (4% to 50%).<sup>5-9</sup>

The disorders for which patients consult practitioners of alternative medicine tend to be chronic, mild and musculoskeletal or stress related rather than infectious.<sup>2</sup> Alternative medicine users tend to present with nonspecific symptoms.<sup>7,9</sup> This indicates

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that alternative medical care may be sought by patients with disorders that are difficult for conventional medicine to deal with because they do not easily fit with the conventional medical model of diagnosing and treating disease. The findings of Smart, Mayberry and Atkinson<sup>6</sup> appear to support this theory. Without a definitive diagnosis, treatment and prognosis a patient may become dissatisfied or frustrated and consult other practitioners of conventional or alternative medicine. We therefore hypothesized that patients whose diseases are classified as functional are more likely to seek alternative medical care because their diseases are more difficult to diagnose and treat by conventional means than many organic disorders.

Dissatisfaction with conventional medicine may affect the use of alternative medicine. A Dutch study showed that alternative medicine users are more dissatisfied with conventional medicine than nonusers.<sup>7</sup> However, studies in Australia and New Zealand revealed no difference between the two groups.<sup>5,8</sup> For Canada, where alternative medicine may not be as popular as in Australia and New Zealand, we hypothesized that users of alternative medicine are less satisfied with conventional medicine than nonusers.

Lastly, beliefs and attitudes other than satisfaction with conventional medicine may be factors motivating the use of alternative medicine. Fulder and Munro<sup>2</sup> cited a British poll indicating that the proportion of people trusting in the wisdom of doctors had fallen from 52% in 1978 to 39% in 1980. Freeland-Graves and colleagues<sup>10</sup> found that vegetarians were more likely to be sceptical of conventional medicine than nonvegetarians. Although the evidence is limited, scepticism toward conventional medicine may contribute to the increased use of alternative medicine.

We carried out a study to determine the proportion of patients attending a gastroenterology outpatient clinic who sought alternative medical care for the same health problem that prompted them to see a gastroenterologist. We also wished to determine whether there are differences in sociodemographic characteristics, use of health care services and general health status between such patients and those who seek only conventional medical care. Our third objective was to test the following hypotheses: patients attending a gastroenterology clinic who use alternative medicine are more likely to have functional disease than nonusers, are less satisfied with conventional medicine than nonusers and are more sceptical of conventional medicine than nonusers.

## Methods

All ambulatory patients who were referred to the University of Calgary Gastroenterology Outpatient

Clinic between May and September 1988 were asked to participate in a study of the use of alternative medicine. New patients as well as those being followed up were included in the study. For the purpose of the study patients were considered to have used alternative medicine if they had seen a practitioner of alternative medicine, such as chiropractors, naturopaths, herbalists, homeopaths and some types of nutritionists (e.g., megavitamin therapists), during the previous 2 years.

The patients were assured that all information would be kept confidential from their gastroenterologist. They were given a self-administered questionnaire by a research assistant and completed it before they saw the gastroenterologist. Information was sought on sociodemographic characteristics, use of health care services, overall health status, satisfaction with conventional medicine and alternative medicine, and scepticism toward conventional medicine. Parts of the questionnaire had been used in a previous study<sup>11</sup> and proved to be very useful. (Because of its length the questionnaire is not included in this paper; it is available on request.)

For each patient the gastroenterologist gave a diagnosis and assigned a functional rating from 1 (highly functional disease) to 5 (highly organic disease). The four participating gastroenterologists were provided with guidelines to aid them in rating their patients. This method had been used in a previous study in which general practitioners rated the same patients in a similar way.<sup>11</sup> Agreement in rating was found in 89% of the cases.

Scepticism toward conventional medicine was measured with a three-item index developed by Suchman,<sup>12</sup> which was tested for interitem reliability and found to have highly significant coefficients of correlation. The items are: "I have my doubts about some things doctors say they can do for you", "When I am ill, I demand to know all the details of what is being done to me" and "I believe in trying out different doctors to find which one I think will give me the best care". Each of the items was coded 1 (agreement) or 2 (disagreement), and the scores were added, so that the total scores could be 3 (very sceptical) to 6 (not sceptical).

Patients who used alternative medical care for conditions other than gastrointestinal diseases were excluded from the analysis because functional ratings and diagnoses could be obtained only for patients with gastrointestinal disorders.

We carried out data analysis comparing alternative medicine users with nonusers using the statistical software packages SPSS (Statistical Package for the Social Sciences)<sup>13</sup> and BMDP (Biomedical Data Programs).<sup>14</sup> Descriptive statistics were calculated, and, depending on the level of measurement and number of cases, the chi-squared, Fisher's exact or

*t*-test was used to test correlations between variables. Logistic regression was used to determine which variables discriminated best between alternative medicine users and nonusers.

## Results

Of the 429 patients contacted 22 (5%) refused to complete a questionnaire, and 11 (3%) did not complete the questionnaire owing to various incapacities (mostly that they did not speak English). One questionnaire was discarded because too many answers were missing. A total of 395 patients thus completed the questionnaire, of whom 287 (73%) had not used alternative medicine, 72 (18%) had sought alternative medical care (mainly chiropractic) for conditions other than gastrointestinal diseases, and 36 (9%) had sought alternative medical care for the same problem for which they were seeing a gastroenterologist.

A total of 60% of the patients were female. The average age of the subjects was 43.4 (extremes 11 and 93) years, almost half being less than 40. Most of the patients were married (68%) and employed (62%) and had completed high school (78%).

The alternative medicine users had consulted practitioners of various types of alternative medicine (Table 1); 46% had consulted more than one practitioner of alternative medicine. More than half of the alternative medicine users (58%) decided to see an alternative practitioner on their own, 36% felt that they were encouraged by others, and for 6% it was a joint decision. Relatives played the most important role in encouraging patients to consult an alternative practitioner. Only one patient was encouraged by his regular medical doctor.

A total of 92% of the alternative medicine users found the alternative treatment useful. In all, 17% reported that they did not follow the advice of their alternative medicine practitioner. Almost half (47%)

were currently following a therapy recommended by the alternative practitioner. Most therapies consisted of vitamins, herbs, exercise or some combination of the three.

No significant differences between alternative medicine users and nonusers were found in sex, age, marital status, education, employment status or income. There were also no significant differences between the two groups in use of health care services (including use and frequency of use of general practitioners, specialists, hospital emergency departments and medical clinics, and admissions to hospital). Perceived health, childhood health, and frequency and duration of symptoms did not differ significantly between the two groups; however, for each of these variables the alternative medicine users consistently reported poorer health than the nonusers. A total of 70% of the alternative medicine users, compared with 47% of the nonusers, reported experiencing stressful life events during the previous year ( $p < 0.02$ ); 44% of the former group, compared with 24% of the latter group, reported experiencing at least two such events ( $p < 0.02$ ). No significant differences were found in type of stressful life event; in both groups serious illness or injury was most common.

Because of the small numbers, functional ratings 1 and 2 (highly functional disease and somewhat functional disease) and 4 and 5 (highly organic disease and somewhat organic disease) were collapsed. Patients with functional disease were more likely to seek alternative medical care than those with organic disease (33% v. 7%) ( $p < 0.0001$ ) (Table 2). The validity of the functional rating was established by cross-tabulating functional rating with diagnosis; this relation was highly significant ( $p < 0.0001$ ). Not surprisingly, a significant relation between diagnosis and use of alternative medicine was also found ( $p < 0.01$ ).

Fewer alternative medicine users (54%) than nonusers (85%) were satisfied with conventional medicine ( $p < 0.001$ ). Furthermore, fewer alternative medicine users than nonusers felt that their conventional medicine practitioners answered their questions about their problem (77% v. 91%) ( $p < 0.01$ ). Alternative medicine users were more satisfied with alternative medicine than with conventional medi-

Table 1: Types of alternative medicine practitioners consulted by 36 patients attending a gastroenterology clinic

Type of practitioner	No. of patients
Chiropractor	19
Herbalist	10
Naturopath	9
Reflexologist	9
Acupuncturist	6
Faith healer	4
Homeopath	2
Other*	13

\*Includes nutritionists, hypnotists, kinesiologists and the Holistic Living Centre.

Table 2: Functional rating for the alternative medicine users and the 287 nonusers

Functional rating	No. (and %) of patients	
	Users	Nonusers
1-2 (functional disease)	18 (50)	37 (13)
3 (undetermined)	1 (3)	24 (8)
4-5 (organic disease)	17 (47)	226 (79)

cine, although not significantly so. A total of 63% of the alternative medicine users were satisfied with alternative medicine, whereas 85% of the nonusers were satisfied with conventional medicine.

Significantly more alternative medicine users (49%) than nonusers (13%) were very sceptical of conventional medicine ( $p < 0.0001$ ). The difference was due to doubts on the part of the alternative medicine users about conventional medicine and to their belief in trying different doctors.

The variables that were significantly related to use of alternative medicine are shown in Table 3. Logistic regression revealed that functional rating and scepticism toward conventional medicine best predicted use of alternative medicine ( $p$  values for goodness of fit 0.999 and 0.991 respectively). Lack of satisfaction with conventional medicine was not very predictive, even though it was highly correlated with alternative medicine use, because it was largely explained by scepticism and functional rating. Scepticism and functional rating were highly related to lack of satisfaction with conventional medicine ( $p < 0.001$  and  $p < 0.01$  respectively). Although scepticism and functional rating were also significantly related ( $p < 0.001$ ), these variables clearly contribute separately to the prediction of use of alternative medicine.

## Discussion

The variables most strongly related to use of alternative medicine in our study were functional rating and scepticism toward conventional medicine. Both variables were strongly associated with lack of satisfaction with conventional medicine.

There are several possible explanations for these results. Patients with functional disease may become dissatisfied with their practitioner as they realize how difficult it apparently is to diagnose and treat their disease. They may therefore consult a practitioner of alternative medicine. This is consistent

with the finding of James and Fox<sup>9</sup> that most alternative medicine users choose alternative medicine as a last resort after conventional medicine. If this is so, one might expect a somewhat higher degree of use of health care services among alternative medicine users than among those who do not use alternative medicine. This was not the case in our study, perhaps because only use of health care services during the previous year was examined. The fact that alternative medicine users reported experiencing more stressful life events than nonusers may indicate that stress contributes to functional disease and to nonspecific symptoms, which are difficult to diagnose and treat.

There has been an increasing tendency for patients to demand a higher degree of participation in the physician-patient relationship. Patients want greater control of their own health care as a corollary of increasing health consciousness among the general population. Not all conventional medicine practitioners are willing or able to enter into such a relationship with their patients, perhaps owing to time constraints or insufficient expertise in dealing with chronic idiopathic conditions as opposed to acute medical diseases with known causes and proven treatments. It is therefore not surprising that patients with nonspecific symptoms and no definitive diagnosis or treatment would be more sceptical of and less satisfied with conventional medicine and hence more inclined to seek definitive answers elsewhere.

Patel<sup>15</sup> has pointed out that an increasingly informed public is becoming more and more disillusioned with the failure of scientific medicine to live up to its promises and to fulfil popular expectations. Therefore, attention has been turning to "holistic", "traditional", "alternative" or "complementary" medicine. This could be especially true for patients with functional disease.

Lastly, patients with a certain personality type may be more inclined to search for alternatives in

Table 3: Study variables significantly related to use of alternative medicine

Variable	% of patients	
	Users	Nonusers
Functional rating of 1 or 2 (functional disease)	50	13†
Satisfied with conventional medicine	54	85†
Satisfied with how practitioners of conventional medicine answer questions	77	91*
Sceptical of conventional medicine	49	13†
Experienced stressful life events during previous year	70	47*

\*0.05 <  $p$  < 0.001.  
† $p$  < 0.001.

medical care. They may not be easily satisfied. We found that alternative medicine users are not only less satisfied with conventional medicine than non-users but are also less satisfied with alternative medicine than nonusers are with conventional medicine. They may also be prone to functional disease. Further research should focus on the reasons why alternative medicine users are less satisfied with and sceptical of conventional medicine.

Some of the concepts and principles underlying alternative medicine may gain wider acceptance and recognition as health promotion and disease prevention become more emphasized in health care. For conventional medicine practitioners it is important to know why their patients seek alternative medical care. Our study provides some important leads, but more research is needed to determine which types of patients seek alternative medical care, what their attitudes are and why they do so. It may also be important for conventional practitioners to know what kinds of therapies their patients may be undergoing. Further research should distinguish among the various types of alternative medicine, and scientific evaluation of the various approaches is needed.

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## Conferences

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**June 12-15, 1990:** Canadian Hospital Association Annual Conference: Caring for Medicare  
Centennial Auditorium and Holiday Inn, Saskatoon  
Conferences, Canadian Hospital Association, 100-17 York St., Ottawa, Ont. K1N 9J6; (613) 238-8005, FAX (613) 238-6924

**June 15-19, 1990:** Canadian Anaesthetists' Society  
47th Annual Meeting  
Hyatt Regency Hotel, Vancouver  
Ann Andrews, executive director, Canadian Anaesthetists' Society, 187 Gerrard St. E, Toronto, Ont. M5A 2E5; (416) 923-1449

**June 24-27, 1990:** Canadian Nurses Association Annual Meeting and Biennial Convention  
Calgary Convention Centre  
Linda O'Rourke, corporate affairs manager, Canadian Nurses Association, 50 The Driveway, Ottawa, Ont. K2P 1E2; (613) 237-2133, FAX (613) 237-3520

**June 24-27, 1990:** Canadian Society of Otolaryngology  
44th Annual General Meeting — Head & Neck Surgery  
Bonaventure Hotel, Montreal  
Canadian Society of Otolaryngology — Head & Neck Surgery, 103-4953 Dundas St. W, Islington, Ont. M9A 1B6; (416) 233-6034, FAX (416) 239-8220

**Sept. 14-16, 1990:** Canadian Hospital Association 7th Annual Invitational Seminar on Health Care Directives  
Millcroft Inn, Alton, Ont.  
Conferences, Canadian Hospital Association, 100-17 York St., Ottawa, Ont. K1N 9J6; (613) 238-8005, FAX (613) 238-6924

**Oct. 17-20, 1990:** Canadian Group Psychotherapy Association 11th Annual Conference  
Minto Place Suite Hotel, Ottawa  
Dr. Allen A. Surkis, 675-1650 Cedar Avenue, Montreal, PQ H3G 1A4; (514) 934-8010

**Nov. 11-13, 1990:** Canadian Hospital Association National Conference on Waste Management for Health Care Facilities  
Radisson Hotel, Ottawa  
Conferences, Canadian Hospital Association, 100-17 York St., Ottawa, Ont. K1N 9J6; (613) 238-8005, FAX (613) 238-6924

**Apr. 21-24, 1991:** Canadian Organization for the Advancement of Computers in Health Sixteenth Annual Conference  
Sheraton Centre, Toronto  
Steven A. Huesing, executive director, Canadian Organization for the Advancement of Computers in Health, 1200-10460 Mayfield Rd., Edmonton, Alta. T5P 4P4; (403) 489-4553, FAX (403) 489-3290